

The RARS EXCITER



Issue 248 - November, 1990 - Club Repeaters: 146.04/64 , 223.04/224.64 , & 444.5/449.5

The Families of RARS Meet the Mueller's

Meet another RARS family - Paul (K9PM) and Sage (KC4NMS) Mueller. Maybe you have met Paul on the repeater or at a RARS function during the last 3 years he and Sage have been in the Raleigh area. However, Sage, is about as rare as a 3Y5 on the air! Licensed after the Fall 1989 Novice/Tech class at McKimmon Center, Sage passed the Novice exam, proving to herself (and the OM) that she could do it. Sage occasionally accompanies Paul to a RARS meeting, and also helps out at Field Day and Hamfest.

Paul and Sage are not only husband and wife, but also busy entrepreneurs and business partners. Together they own and operate an executive search consulting firm, Paul Mueller & Associates (guess who is the Associate?), that represents a handful of corporations from around the country who retain their services to identify, screen and select candidates for middle and upper level management positions. Paul and Sage are also in the process of starting

up another company that is geared to help those who want to find a job in North Carolina. They plan on having that business up and running by the first of the year.



Sage is a bubbly personality with sparkling brown eyes and an engaging smile. Born and raised in the Chicago area, she has also lived in Hawaii, Arizona, California and Florida. After returning to the Chicago area, Sage went to work at the consulting firm where Paul was a Vice President. They met in 1985 on Sage's first day of work and began dating during her first week on the job.

Says Sage: "On our first lunch date he interviewed me like I was a job candidate!" Says Paul: "She bought ME lunch on the second date -- how could I resist!" Well, a year later they were married in a tree house on the grounds of the Mohonk Mountain Lodge

Mueller's -- Continued on Page 13

The Raleigh Amateur Radio Society, Inc. (RARS), founded in 1969, has grown to be one of the premier radio clubs in North Carolina. Current membership exceeds 300.

The objectives of the club are to promote world wide friendship through Amateur Radio; to be of public service by providing radio communication in times of disaster, emergency, or civic need; to educate members in radio technique, and to assist in obtaining Amateur Radio licenses.

All persons interested in Amateur Radio, currently licensed or not, are eligible to apply for membership to the club.

Dues to the club are \$10.00 per year (which runs from July 1 to June 30). Applications for membership may be obtained from any of the officers named below; from the newsletter editor, named on the facing column; or at any RARS Meeting.

Club meetings are held the first Wednesday of every month, 7:30 PM, at the Raleigh YMCA, 1601 Hillsborough St.

In addition to the many social and special events, the club sponsors a 2 m repeater, W4DW, on 146.04/64 MHz; on 223.04 / 224.64 MHz, & 444.5 / 449.5 using the call WA4PEN. All repeaters cover Raleigh, and most of the surrounding Wake County area. Auto-patch privileges are available on W4DW to duly licensed RARS members. Future plans call for additional repeaters on the 50 MHz amateur band.

1990 Officers:

President:	Jim DuBreck, N4BYO 1209 Shelly Road Raleigh, NC 27609 781-9437
Vice President:	Anita Kellum, KC4AQB 208 Chatterson Drive Raleigh, NC 27615 846-7455
Secretary:	Ronny Reams, WA4MJF 3509 Rolesville Road Wendell, NC 27591 266-4434
Treasurer:	Tim Buehlmann, N4IQA 1314 Chaney Rd. Raleigh, NC 27606 851-7738

The EXCITER is published monthly by the Raleigh Amateur Radio Society, and is mailed at no cost to its members.

Letters to the Editor, technical articles, items of interest to the ham community and guest editorials are actively solicited.

Any article published in the EXCITER does not necessarily represent the views of, the Officers, Board of Directors, Editor, or Society Membership, nor does publication thereof represent concurrence by the Officers, Board of Directors, Editor, or Society membership with the contents of the article.

Articles will be printed at the discretion of the Editor, and no article will be published unless it is accompanied by the name(s) of the person(s) submitting the article.

All copy must be in the hands of the editor by the end of the Board of Director's meeting on the third Wednesday of each month. Articles submitted for publication may be hand or type written, an ASCII file on disk (IBM or APPLE format), transmitted electronically via telephone modem, or on the ham bands using RTTY or PACKET.

Ham related items for sale by the members will be advertised without charge for one issue, but may be re-submitted as often as desired. These ads must be non-commercial in nature.

Commercial ads will be run in return for the following donations to the club:

	Single Issue	Full Year
Business Card	\$5.00	\$25.00
Quarter Page	\$10.00	\$50.00
Half Page	\$20.00	\$100.00
Full Page	\$30.00	\$150.00

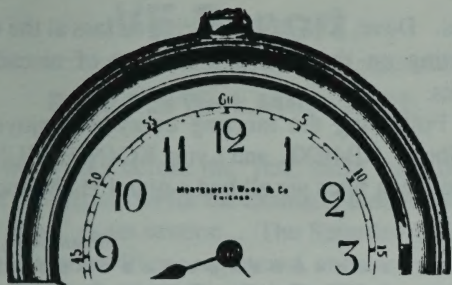
(Commercial ads must be of "camera-ready quality," and obviously can not be sent via ham bands.) Due to the reprographic process used, no color copy can be accepted.

Advertisers are guaranteed a minimum monthly mailing of 400 copies.

Editor: Vince Yakamavich, AA4MY
220 Carriage Trail
Raleigh, NC 27614
847-8512 (Home)
850-5390 (Office)



Amateur Radio News Service **AMSAT**



Minutes of the Meeting

The regular monthly meeting of the Raleigh Amateur Radio Society was held 03 OCT 90 at the YMCA on Hillsborough Street. President Jim DuBreck, N4BYO, called the meeting to order and welcomed the 69 members and 12 guests.

N4IQA gave the Treasurer's report, and also a plug for the new SIG: the RARS-Vintage Amateur Radio (RARS-VARS).

Al, N4UOF, stated that there was a HF SIG being formed and the first meeting would be at his house on 04 OCT at 1930.

Lynn, KC4NJB, reminded all that the annual picnic would be this coming Saturday the 6th at ABB.

Cole, W1HZQ, made his monthly report on RARSFEST 91 and stated that the OCT meeting would be at the YMCA on the 24th.

Kirk, KK4YP, told us of the TERA Hamfest on 20 OCT and awarded some free tickets.

Edward, N4SSU, spoke about needing some more RARS members to help the Red Cross at the State Fair. Almost all slots are filled.

Treasurer Tim, N4IQA, spoke of the annual auction being next month and explained some changes from last year.

Anita, KC4AQB, told of the girls night out and said that they would hold one every other month on the last Thursday evening. WWIN will move to 9:30 PM local each Wednesday night.

Chuck, K4HF, presented the nominating committee report. Elections will be next month. All incumbents were nominated except that Gary Pearce (KN4AQ) was nominated for Publicity Chairman, and there are no nominees for Training Director (incumbent Bob Rinn, N4VQN) and Public Service Director (incum-

bent Edward Breeden, N4SSU). Anyone with ideas for nominees for these two vacant positions were advised to contact a member of the committee.

Ed, WA4PEN, asked that any members interested in a volume purchase (with discount) of Rohn tower to contact him. He stated that RARS has done this before with good results.

The program for the evening was in two parts: K4CIA speaking about the "new" HF WARC bands, and KB4MDZ speaking about the new controller on the 2 meter FM repeater.

Door prizes were awarded to N4SSN (1990 Domestic Callbook) and WA4ENZ (ARRL Antenna Notebook).

The meeting adjourned.

*Ronnie Reams, WA4MJF
RARS Secretary*

November Meeting: AUCTION!!!

Bring all your boat-anchors ... clean out that shack of all junk. The annual RARS auction is at hand!! This is a golden opportunity to rid your shack of all your un-wanted electronic equipment. Remember ... what may be "junk" to you may be just what someone else has been looking for!

Auctions past have had parts ranging from .25 cents to full featured rigs for several hundred \$\$s. Certainly, something will be within YOUR budget! If nothing more, you'll get a good evening of laughs watching the auctioneers (N4BYO & WA4MJF) try to guess what everything is!

Remember to bring any equipment you care to donate to RARS.

Elsewhere in this EXCITER are the ground rules for sellers & bidders. Please read them carefully, and come early to set up and inspect the goodies. After a brief business meeting, the auction will commence!!

RARS Christmas Party: Saturday Dec. 8th
Mark Your Calendars!!
See You There!

VHF/UHF SIG REPORT

The regular meeting of the October VHF/UHF SIG was held on October 11th at the QTH of Ronnie and Sherry Reams.

The following RARS members were present: AB4OZ, WA4PEN, KC4GFR, N4PNO, AB4FY, KM4UT, WD4MYM, K4SAN, N4SSU, N4UOQ, WA4MJF, KB4EXL, KB4VYP, KC4JJZ, KM4BU, AND WA4LHE.

Ed, WA4PEN, called the meeting to order with the following announcements:

(1) The September RARS board meeting adopted the 3-year joint VHF/UHF and 2-meter SIG proposal for RARS central communication systems.

(2) Details of the previous SIG meeting decisions on \$6.00 yearly dues and refreshments were discussed.

(3) Charlie, WA4WTX, of the Durham FM Assn. has offered to help RARS with the new controller on the 2-meter repeater. We appreciate your help Charlie!

(4) Everyone mark your calendar at November 8 for the next VHF/UHF SIG meeting to be held at the home of Ronnie and Sherry Reams, 7:30 PM. This is the next evening following the regular RARS monthly meeting.

Alan, AB4OZ, told the group about an interesting spectrum analyzer demonstration that was held at the latest HOME BREW SIG meeting. He also showed a new duplexer which will be used on the 444.95 MHz repeater to improve it's performance. Alan discussed work on the speed-dial, repeater site cabinet, chargers, controller s-meter and other projects.

The new MODEL 96 controller is installed and working on the 2-meter repeater. A special "WELL DONE" to Alan, Chuck, and Ed for their hard work. IT SOUNDS GREAT!!

The 444.95 MHz repeater is presently up but has been down with fuse holder problems. The 444.5 MHz repeater is up on low power (about 6 watts) due to a lightning strike which took out the power amplifier. It is waiting on parts. The 220 MHz repeater is up but hearing unwanted signals, probably from nearby other radio services.

Ronnie gave an excellent Basic FM Receiver Theory

class. Dave, K4SAN, will give a class at the next SIG meeting on the care and feeding of ni-cad battery packs.

Following the meeting everyone enjoyed cakes by Sherry, KB4EXL, and Lynn, KC4NJB; YUM-YUM! In between bites we all had a grand HAM social.

Glenn Clary, WA4LHE

HF SIG REPORT

The RARS HF SIG held its first meeting on Oct. 4th. Discussion centered around the basic goals of the SIG which were as follows:

1. A decision was made to present the SIG meetings as a series of classes.

2. The SIG has decided to move its meetings to the third TUESDAY of each month.

3. Next month's topic will be "The Construction and Installation of Simple HF Dipole Antennas complete with coax and connectors". Location to be the **RARS Novice/Tech Class at the McKimmon Center, Thursday, Nov. 8th.**

The general purposes of this SIG was agreed to be as follows:

1. Discussing HF antennas and helping hams repair their own rigs.

2. Helping new hams get onto the HF bands by obtaining old rigs, repairing them and making them available to new grads of the class.

3. Mobile HF classes.

4. Classes on topics such as single-sideband, CW/AM, and all the other modes available for use on the HF bands.

This is just a preliminary list of interests and will become more focused as the SIG matures. The meeting ended with the troubleshooting and repair of N1BA's "boat-anchor" oscilloscope. A hope was also expressed that by assembling this group, it will be possible for hams to obtain the knowledge and skills necessary for repairing old rigs and test equipment by drawing on the experiences of others in the SIG.

Don't forget the next meeting at the RARS Novice/Tech class on **Thursday Nov. 8th!** All RARS members are invited!!

Al Johnson, N4UOF

VE Report

RARS VEs Work JARS 'fest 91

Two weeks before the 'fest, there were only 12 people pre-registered for the exams. I thought it would be a "lazy" exam session... The Saturday before the 'fest, there were 40 pre-registered, and another batch I knew would "walk-in." So much for the "lazy session!" Total head count: 52 examinees. Folks came in from all over, drawing heavily from eastern NC -- drawing heavily from places like Fayetteville, Ft. Bragg, Kinston, Kenly, etc. Two out of state-ers: one from Virginia, and the other from Washington!

With the large number of applicants, we pulled out all the stops and recruited a "comfortable" number of VEs. Actually, recruiting help for the JARS fest was pretty darn easy -- everyone I asked agreed to drive out and help! A total of 13 VEs worked the session: **Lynn, KC4NJB; Mike, AB4CH; Jim, AB4TD; Joe, WA4GIR; Bill, N1BA; Paul, WB4YBF; Rob, AB4FY; Glenn, WA4LHE; Alan, AB4OZ; John, AA4MP; Pete, KN4OO; Steve, AB4EL; and Vince, AA4MY.**

Over 90 exam elements were administered, and of that, 26 people managed to up-grade. There were many CSCE's issued, allowing many more folks to complete their up-grade another day.

The success rate by test type varied from 100% (Novice written), to 30% (20 wpm code). Average success rate by element was 55% -- about the national average.

Only a couple of RARS-ite were there to be tested -- me thinks that's because we in RARS have exams available often enough that we don't have to "waste" a good Hamfest to be tested!!

Congrats to RARS Members:

**Roger Woodbury, KC4NMT, now Advanced
Dave Hyte, N4XPE, 20 WPM CW**

In addition to the RARS-ites, there were several YLs there, many earning Techs. I observed this to be both good and bad: the YLs were definately happy to have passed; their OMs, while initially happy, were

seen sometimes grumbling about having to buy them a new HT!

The "highlight" was definitely **Robert Smith**, of Middlesex, NC (**KN4OO's father-in-law**). This gentleman (60 years old), didn't quite pass the 5 wpm code test at the Raleigh fest in April. At the JARS fest, he passed **20 wpm**, using a **typewriter!** (Guess the 5 wpm was just too darn slow!) Anyway, he successfully earned his **NOVICE license with 20 wpm!** Way to go, Mr. Smith!

Comments / Critiques:

It was an excellent session -- starting at 10 AM, we were done at 1:30 PM. We shuffled a lot of people thru that room in 3 and a half hours! Couldn't have done it with out so much volunteer help from the RARS VEs. The rules say we can give tests with only 3 examiners ... We kept 13 pretty busy!!

Once again, the smoke from the hamburger grill made conditions hazy inside the exam room. We know that "problem" is, in reality, a plot by JARS to sell more 'burgers! I mean after smelling them suckers cookin for 3 hours (and trying to keep our drools off test papers), when lunch time came, we were **READY!**

All in all, it was a very enjoyable exam session (?? !! I know .. that's easy fer us examiners to say!), at a **GREAT hamfest**. The folks in JARS should be proud of their efforts. Especially the YLs and the kitchen crew. Excellent food. **Another job well done by all.**

Vince Yakamavich, AA4MY

Area Exam Schedule:

Mon. Nov 5th, Raleigh, RARS Novice/Tech Class,
McKimmon Center of NCSU, 7:30 PM -- Exams open to the public; all exams offered - Novice thru Extra (RARS VEs -- help!). Info: AA4MY, 847-8512

Sat. Nov. 10th Durham. Contact Pete Goolsby, KY4Y @ 544-3215 for info.

Wed. Dec. 5th Raleigh. @ the RARS Meeting,
Raleigh YMCA, Hillsborough St. 7:30 PM. Info: AA4MY @ 847-8512.

RARS VE's Do It Again At TEARA

Two weeks after the Benson affair, the RARS VE's were again active, this time at the Triangle East Amateur Radio Assn. 'fest in Smithfield. Although somewhat smaller than the Benson exams (only 20 applicants, vs. 52) it was still a most worth while endeavor.

Congrats to RARS members **Dave Hyte, N4XPE**, who picked up element 4B to complete his **EXTRA**. Also congrats to **Robert Smith**, who still doesn't have a Novice callsign, but it comes in, he'll be signing as a **General!** ("Smitty" was the guy who earned his Novice @ Benson with 20 WPM!)

RARS VE's were: **Terry, AB4VJ; Alan, AB4OZ; Glenn, WA4LHE; Joe, WA4GIR; Paul, WB4YBF; Rob, AB4FY; and moi, AA4MY**. We were also assisted by **Lynn, KC4NJB; and Pete, KN4OO**, who most graciously helped out by grading written exams. Numerous compliments were heard regarding the professionalism of the examiners & quality of the test tapes were received from the applicants; as well as expressions of gratitude from the folks in TEARA to RARS for helping them out. It's evident the reputation of RARS is growing throughout eastern Carolina, thanks to the unselfish efforts of those who call themselves "the RARS VEs."

AA4MY

RARS EXCITER to Change Format?

In our seemingly never ending battle with the Post Office, it was found that our current format (8.5X14 paper, side-ways) exceeds the maximum allowable size for .25 cents postage. Last month we were forced to pay an additional .10 cents each for an "oversize" surcharge. Numerous options are available: re-instate the fold & staple parties, change format to 8.5X11 & fold three times, go back to bulk rate, etc. N4BYO appointed N4IQA, N4VQT, & N4IZE to a committee to investigate & report suggestions at the Jan Board Meeting. Have any thoughts? Make 'em known!!

RARS Ham Class Another Success

By the time you read this, the "final exams" will have been given at McKimmon, and certainly, we will have helped many a new comer to the ranks of Amateur Radio.

We congratulate the following for their efforts and accomplishments in class:

Rick Bailey, Geln Bloodworth, Dunwood Barbour, Lori Benton, Terry Bowyer, William Bressler, Bruce Buck, Otis Cowpar, Earl Crockett, Ferrel Drewry, Robert Dunigan, Timothy Dunn, David DeNest, Larry Dwon, Dave Edwards, Ken Eagleson, Marcus Frear, Joshua Ellis, Liz Gordon, Harry Huddleston, Susan Hyte, Terry Jernigan, Jimmie Lassiter, Herman Lawing, Susan Lewis, Kevin Littlewood, Sherry Mansell, Darrell Massengill, Del Mayes, Alice Oviatt-Lawrence, Henry Patrick, Jim Pyne, Joel Reames, Debhora Reames, Glenn Rhodes, Brian Ring, Steve Robbins, Margaret Slipsager, George Stevens, Douglas Sweet, Karen Shakhtur, Fred Voeltner, & Ed Wood.

We also congratulate the many, many RARS members who helped instruct this, our latest training class. Special thanks to El Prez Jim DuBreck, **N4BYO** & Training Guru Bob Rinn, **N4VQN** for their many hours spent working BEFORE class #1 even started, and many more hours since. Special thanks also to Dave Hyte, **N4XPE**; and John Mentha, **K4FAD** for their herculean efforts instructing the code, night after night after night.

To the new graduates, we hope you will not be strangers within RARS -- we look forward to seeing you at our meetings, and talking with you on the club's repeaters. [Editors Request: Please call, & let me know what your new call signs are when you get them!!]

One final thought:

"Welcome to the ranks of Amateur Radio!"

AA4MY

November Auction

The annual RARS auction promises to be an exciting affair once again. It is hoped that many members of RARS will participate and indeed bring loads "goodies" they no longer need to the sale. In return, who knows, there will likely be something for one and all to take home.

By all means please plan to come early. The meeting will start promptly at 7.00 pm with the auction starting right after a short business meeting. If you are bringing items for the auction try to arrive by 6:30 pm. When arriving please come to one of the entrances indicated on the auction room floor plan indicated below. At the sign-in table you will find an auction registration form, auction card and equipment registration labels. If you are contemplating only a purchase you need only to secure an auction card and registration form. Those who are wanting to auction items must have an auction card, fill in a registration form and place an equipment label on each piece of equipment that is to be auctioned off individually. The

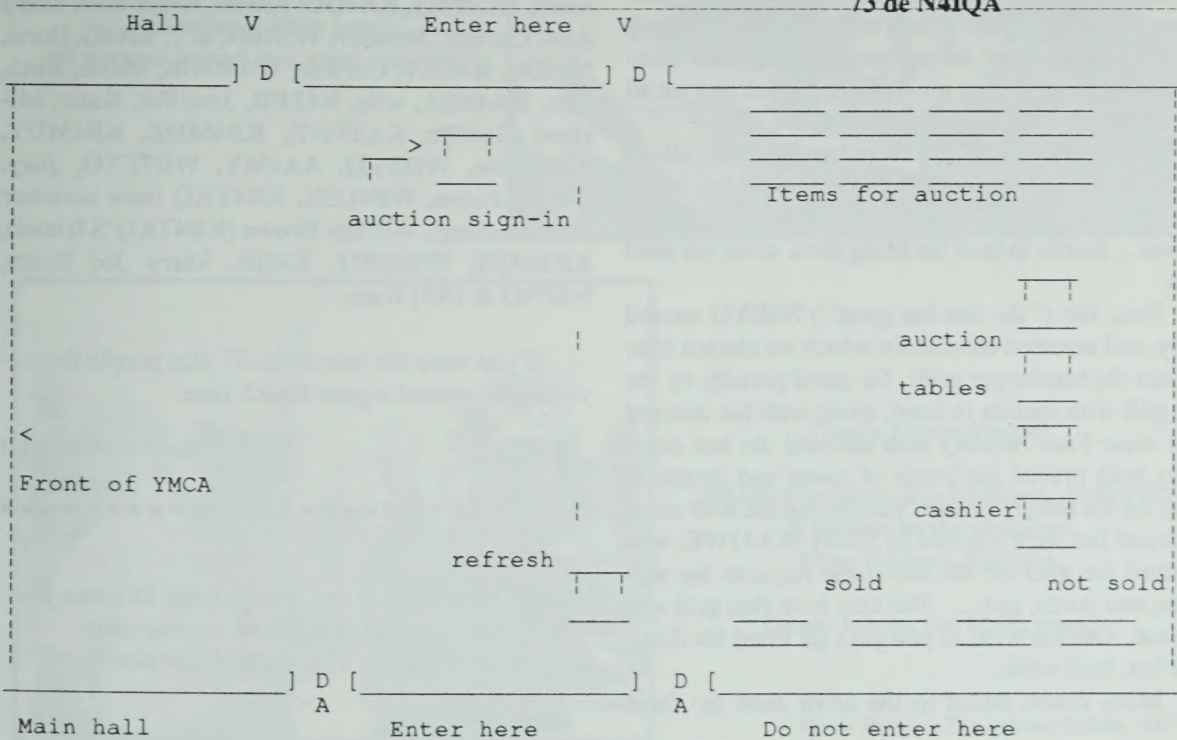
label must have the following information: Your bidder number and minimum price - any. If known please state condition of equipment. When no condition is stated the gear will be presented as CONDITION UNKNOWN. Items not having a label will not be auctioned off. One table will be set aside for equipment that anyone wishes to donate the proceeds of the sale to RARS. Please do not fold or in any way destroy the bidder's card. They will be used again next year.

During the auction the cashier will compile your net sales/purchases and at the end of the meeting give you cash for the net balance due you or request payment due RARS when purchases exceed net sales. If the amount due a participant is greater than \$ 50.00 the payment will be in the form of a RARS check.

Any person who cannot stay until the close of the auction please indicate on the registration form the time you wish to leave. At that time the cashier will attempt to settle your account. No equipment will be permitted to be taken by purchaser before the auction funds have been paid/collected and seller must remove all unsold gear must be removed by the end of the meeting.

See y'all there es hope u find what you want.

73 de N4IQA



RARS Picnic '90: A Great Time Had by All!

It was a beautiful day to have a picnic. The sunshine bathed the day with brilliant glow, the temperature was in good humor and there was not a dirty cloud in the sky. The people of RARS came strolling in to find that Tim **N4IQA** and Bob **NA4G** had set-up their vintage radio stations early, with a grand display of even older radios inside the shelter. [Ed: I know the CW station was working fine, but did **N4IQA** ever get a contact on 40 meter AM??]

Walter, **AB4DQ**, also had set up an operational station on 20 meter SSB, running an impromptu "Special Event". He had quite a pile up going for most of the afternoon, and was talking to other hams coast to coast, telling them about RARS' Family Day '90.

All of these stations were available for RARS folks to operate, and join in the fun. This generated a lot of interest from the group -- thanks to Tim and Bob and Walter for their efforts.

Lynn **KC4NJB** and Allen **AB4OZ** did a great job getting the calling committee formed to let everyone know about the Picnic. They scurried around getting all the mountains of buns, 'burgers, dogs and nick-nacks that make a party go. It was a big job and we all are appreciative of their dedication.

Ronnie **WA4MJF** was there handling the Talk-In (and fooling around with the beer) while his better half, Sherry, **KB4EXL** had her hands full with the games ... thanks to both for being there when we need you.

Pres. Jim ("the late but great") **N4BYO** arrived early, and assumed the role for which we elected him: to man the hamburger grill! He stood proudly by the hot grill with spatula in hand, along with his devoted first mate Fran **N4SDQ** who handled the hot dogs. They both braved the beads of sweat and grease to cook for the hungry hoards. Having fed the mob once, Fran and Jim were relieved by Sonny **WA4JWE**, who manned the grill for the inevitable requests for seconds, and thirds, and ... The heat from that grill was intense. Our hat is off to you guys (& Fran) for doing that hot, hard work.

Many others added to the affair such as: Dave

AB4LR, helping with lugging the ice for beer and drinks; all the ladies who made phone calls, and everyone who came and brought the baked beans, potato salads, dips and desserts.

Everyone seemed to have a good time talking, playing games, working the radios and eating, but the real treat came when Walter, **KM4BU** & Rick, **N4VQT** got out their guitar & banjo and started to play ... the mood was easy and the group joined in with the sing-a long.

Last but not least, Tom **N4ZAD** lead the group with cleaning up. Thanks to all who stayed and helped.

A special word of thanks to Roger, **W3EZR**, and to his company, **ABB**, for once again allowing us use of their superb picnic facility.

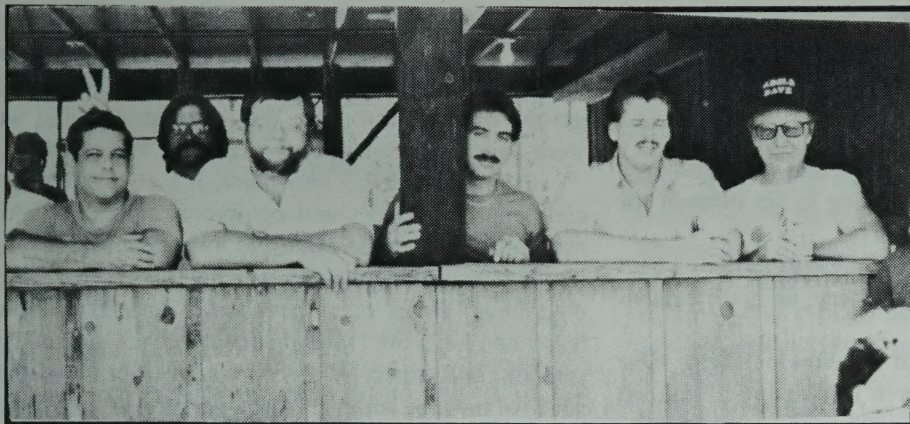
Some of the folks seen there were: **N4IQA**, **NA4G**, **N4BYO**, **WA4PEN**, **W3HXM**, **AB4OZ**, **AB4DQ**, **AB4FY**, **N4UOF** & Tallie, **N4YRC**, **KB4OQO**, **KC4ION**, **WA4MJF**, Ryan, **N4LBA**, **N4ZDC**, Robi, Tammy, Chris, Julia, **KC4NJB**, **WA4JWE**, **KC4AQB**, **N4XOX**, **N4RWZ**, **N4OIC**, **W1HZQ** & wife, **N4VQT**, **W3EZR**, Greg Allen (Sonny's friend), **KB4VYP**, **KB4EXL**, **K4HCG**, Beth, **KN4LE**, Pauline, Melissa, Amanda, **KM4BU**, **N4SSS**, Edward, **KC4PHJ**, **KN4OO**, Karen, Kristi Ann, Mary Ann, Christy, Jennifer, **W2BBN**, & ?, **KN4G**, Doris, **N4SDQ**, **K4LXV**, Carlene, **WA4OGK**, Marie, Ruth, Ben, **KA4NSA**, wife, **N4ZBB**, Jennifer, Katie, Michael George, **KA2FWE**, **KB4MDZ**, **KB4MDY**, Katherine, **WD2AJJ**, **AA4MY**, **WB7TXO**, Joey, Billy, Kristen, **WB4USX**, **KB4TKQ** (new member from meeting), William Brown (**KB4TKQ**'S friend), **KB4AQH**, **WB4DRJ**, **K4HF**, Mary Jo, Brian, **N4PNO** & (K9) Kate.

If you were not one of the 87 plus people there -- you really missed a great RARS time.

Anita Kellum, **KC4AQB**

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*RARS Membership can save you big \$\$ when you join or renew your ARRL membership. See Treasurer Tim, **N4IQA**, for details.*



"Where's the Girls?"
Lookin' like a pre-teen
dance hall (boy side):
Alan, AB4OZ; Pete,
KN4OO; ???,
Anthony, WD2AJJ;
Rick, N4VQT; and
Dave, AB4LR

Just Tunin' Up:
Rick Yost, N4VQT
(on guitar) &
Walter Price, KM4BU
(on banjo).

Following a little jamin',
all present joined in a good sing-along.



Chef's Extrordinaire:

RARS President Jim DuBreck, N4BYO
& hidden in the shadows,
Fran Beckett, N4SDQ.

Great Job on the Grill, guys!

A.R.E.S. Supports Repatriation Efforts

"I've been dialing my home and keep getting a busy signal. Can you keep trying to get through for me?"

"Can you get a message to my father? He is a ham radio operator. Oh, and by the way, he is the captain of a ship and is at sea."

"We weren't scheduled to be on the flight. Our only relatives in America aren't expecting us and we only have a P.O. BOX at a college in Florida. They have no phone."

"Can you help me get a message thru to the Canadian Embassy in Baghdad?"

Amateur Radio operators did those, and more. We may have used the twisted pair instead of the NTS, but to our "clients" we were still heroes/heroines.

Wake and Durham county A.R.E.S. members have been providing message-handling services for the repatriation flights arriving at RDU. Onsite emergency traffic was passed to the Red Cross first Aid Station and some hams were even seen rocking some infants in the nursery. (You'll never find out who it was cuz I won't tell you WB4YQA's name. Hi!)

The repatriots were given a revised (less complicated) Radiogram form to fill out. These "standard text" radiograms had an addressee and alternate addressee block to fill in. It was our thought that waiting in lines wouldn't be so taxing on them if they knew someone was trying to contact their relatives. The detainees were to have the packets containing the radiograms while they waited for their baggage to be unloaded and to go through customs. (About an hour wait.) In practice, they were given the packets as they EXITED customs which was about thirty paces before they reached our first table. Not good. Had they time to browse the packet while waiting, we would have had more traffic. Also, MCI and Centel were in attendance offering banks of phones for free phone calls. I think it is fitting, and not suprising, that most difficult communications jobs fell to amateur radio. Our role as the communications experts on scene was validated. What is even more encouraging is that the

repatriots were brought to our table by their NC escorts. That means that the rank and file workers on the scene realized that amateur radio was the way to get the message through. We demonstrated that we were, to use some marketing jargon, a "value add."

From an A.R.E.S. viewpoint, it's always beneficial to get operators and equipment into the field, especially in locations like the airport, where we're likely to be again and again. It's helpful to see "those other guys" from "that other county" and get to know them and to work with them. Another somewhat serendipitous aspect of this particular exercise is that seven of the nine amateurs that "personned" the State EOC, had never been there before. To be introduced to the EOC under these less stressful conditions and have a chance to look around and feel comfortable there will prove to be of value in the future. By the time this goes to print, A.R.E.S. will have supported four flights at RDU. Amateurs participating in the repatriation effort were: AB4S AB4T AB4W AB4XF AI0K K2RS KA4DVP KB4WGA KC4ACE KE4ML KM4LB N4ELM N4QVQ N4SDQ N4SSU N4UE N4UOQ N4USR N4UTT N4XLY N4XPE W4PNC WA4AKB WD4NLW WB4YQA WB4ZSM N4SDQ K9PM KC4NMS N4YRY N4YRD N4ZUD K4RKI WB4DCM

Thanks all!

*Tom Klimala, KM4LB
Wake Co. EC*

Women's Nite Out

The September meeting was great. We started organizing. Denise, N4XOY and Lynn, KC4NJB were elected to head the group for 1 year.

We also discussed possible names for the group. If any RARS YLs have any suggestions for a name, please let us know.

As always, we enjoyed visiting with each other, and engaging in that most pleasurable activity: girl-talk.

It was decided that our meetings would be every other month. The next meeting is NOV. 29 at SHONEY'S in CARY. All women, licensed or not, are invited to join us.

MAKING ANTENNAS PLAY

by Steve Modena AB4EL

The G5RV antenna

More people ask me about the G5RV antenna than any other. I am going to make a few comments on the G5RV, based mainly on an article by Louis Varney, G5RV himself ("The G5RV Multiband Antenna ... Up-To-Date", The ARRL Antenna Compendium, Volume 1, 1985, Pp. 86-90).

This antenna was specifically designed to operate on the 20 Meter band (14.15 MHz) in 3/2-wavelength mode. That is why it is 102 feet long. The 34 foot (minimum) twinlead feeder is 1/2-wavelength on 20 M. In other words, looking into the feeder, this antenna is resonant (resistive) on 14.150 MHz!

Of course, everyone (including G5RV) uses this antenna on all bands from 160 M to 10 M. The 32 foot feeder plays an important role in taming feed-point reactances by "adjusting" the length of the antenna. On some bands, the reactances are small and on others, manageable.

Varney emphasizes in several places that a suitable transmatch is a NECESSITY. If one is going to run QRO (high power), then the transmatch must also be designed to handle the voltages associated with high powered high SWR, because on some bands this antenna IS OPERATED in high SWR mode. Though I mentioned, and you most often see, the 34 foot twinlead drop feed; Varney discusses alternative open line feed systems based on the idea of tuned feeders. This requires something like the Johnson MatchBox. The general point is: be sure that you have an adequately flexible tuner if you want to use this antenna on all bands. You may not need a tuner on 20 Meters (only).

Does a "real" G5RV antenna have, or need, a balun? According to Varney: yes and no. Varney carefully explains why a balun in the form of wire wound on a ferrite -- while at first appearing to be a good idea -- is, in fact, a good candidate for burn out.

Burn out? Many people are under the impression (as was G5RV originally) that a VOLTAGE-type balun was needed to "match" the 300-ohm twinlead to the 52-ohm coax. Not so--and not feasible. The impedance of the twinlead is immaterial, as he says repeatedly--now. Low loss transmission line construction is very important--because this antenna is often operating at high SWR.

A CURRENT-type balun may be recommended if there is RF current flowing on the outside of the coaxial braid. G5RV left out the choke, did some measurements and found--surprise, surprise--no unbalanced current. Unfortunately, many people will read the article and believe that a choke is not needed at all. Not so. It depends on what is happening on the transmission line at your shack, not on what is happening at someone else's shack. Rule of thumb: use of a ferrite collar-type or air-wound coil of coax choke-type balun is ALWAYS correct (think about that). For a very good explanation of this balun stuff, read the article by W7EL in the same Antenna Compendium book ("Baluns: What They Do And How They Do It", Pp. 157-164). And to that title, I would add: and what they can't do.

The G5RV is a multi-band, multi-mode, "short" antenna that is a good choice when you can only put up one HF antenna. Because of the requirements for operating it, it is not necessarily a "beginner's" antenna. This is not a magical antenna: it's an imaginative version of the double Zepp.

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RARS Christmas Party

Saturday, Dec. 8th!

Mark your calendar's folks! This year's party will be hosted by Chuck, (K4HF) and MaryJo Littlewood. The party will be held at their home (2005 Quail Ridge Rd. North Raleigh, off of Falls of the Neuse Rd, just North of Millbrook Rd.), starting at 7:30 PM.

This will be a "family" party -- we're trying to locate a suitable (?) Santa. All are asked to bring a small gift (<\$5). OM's bring a gift suitable for an OM; YLs for YLs. No food to be brought. There will be holiday munchies, and a bar set up. The event is FREE to RARS MEMBERS. Plan on attending!!

N4XXG / KM4LB

Fox Hunt Results

The fox hunt went off as scheduled on Saturday September 8th with only one minor hitch: N4XXG was in Japan! Fortunately his handiwork, the code generating controller and EPROM performed flawlessly. The fox was on a railroad embankment along Apex-Morrisville Road just north of the Salem Church Road intersection. KM4LB and AB4T sat (with permission) behind a barn on a hill overlooking the fox's den.

The capability of remote control (kerchunking) of the fox brought out the worst in Tom and Harry. They sat watching cars cruise up and down the road paralleling the tracks. "Let 'em get a little farther ... easy ... easy ... NOW!" ... kerchunk! The hunters were making U-turns on command!

At the "debriefing" afterwards at KM4LB's, an analogy was found that accurately describes this cruelty: remember the shooting arcade game with the bear that traveled across your field of view? When you scored a hit on the bulls-eye on the bear he would rear up and reverse direction. That's what kind of fun remote kerchunking buys you! Sometimes they'd wait until the vehicle was exactly broadside of the antenna and stop it in it's tracks with the operator waiting for another signal. Sometimes it came ... sometimes it didn't.

One note about the location. It was chosen for it's height and because the two clubs in Durham were also invited to hunt. Had we known that Durham was giving exams that day and wasn't going to field a team, our choice of site might have been different.

Doppler antennas had mixed results; bad and worse. Signal strength methodology seemed to be much more reliable as long as you have the attenuation necessary when you get up close. Some groups arrived in minutes of each other () team members are grouped by commas. (NX9T N9JAS, WB4DDK) (KC4ACE AB4W, K4SG N4YRH) (N4VQT KC4PHJ, N4BYO) (N4RED W4FNB)

AB4T and N4XXG are planning future fox hunts. But remember ANYONE can announce a foxhunt at ANY time. Be ready!

Tom Klimala, KM4LB

Ham "Fox Hunter"

Helps Find Police Radio Jammer

Manchester, CT -- A local man faces 142 counts of interfering with police radio communications thanks in large part to an Amateur Radio operator. Manchester police raided the home of 35 year old John D. Bertrand on Sept. 25 and confiscated electronic equipment they believe had been used for some 4 months to interfere with the input of the Manchester P.D.'s 465 MHz repeater.

Helping police -- as well as engineers from the FCC's Boston office -- locate the suspect was Bruce Marcus, WA1NXG. Marcus, whose company specializes in 2 way radio, was called in as a consultant in August, when the jamming was in its third month, after the call for assistance of a police detective was not heard because of the jamming.

"I put my ham direction finding experience to use," says Marcus, who is also vice president for the Pioneer Valley Repeater Association. Using a blacked-out yagi antenna on his car, Marcus was able to observe the FCC's receiver "seeing" the jammer, without electronically revealing his own presence.

"When it was all over, the FCC was very interested in the 'stealth technology' equipment I was using," Marcus says.

According to the arrest affidavit, when Marcus and police office entered the Bertrand house, they found a bedroom filled with electronic equipment later described by FCC engineers as being solely suited to "jam the police radio system."

Marcus, 45, a ham since 1970 was accompanied on the hunt by his 10 year old son Steven, who is himself studying for his amateur license.

Bertrand, who faces 142 counts of first degree criminal mischief and four counts each of reckless endangerment and interfering with a police officer, could receive five years in prison on each of the 142 counts, as well as a year imprisonment for each of the other charges.

ARRL Letter
10/19/90

Meet the Mueller's

Continued from page 1

in the foothills of the Catskill Mountains in New York.

Besides her partnership in business with Paul, Sage is quite active in a number of other areas. She creates and produces hand-crafted jewelry under the name "Out Of This World Designs" which she sells through local boutiques. She is a talented musician who taught herself to play guitar when she was 9 years old. Sage has composed and publicly performed over 20 original songs. She is a Vegan--a vegetarian who neither eats, wears, nor uses any products derived from animals (no wonder she doesn't like being called a Ham!). She is also a peaceful animal rights activist. Sage's other interests include human potential/self-development, reading, shopping, socializing with family and friends, outdoor activities, health, exercise, movies, and playing with their two cats--Chloe and Zoe (their names rhyme with "Snowy").

One of 12 children, Paul grew up in the Chicago area. His father had been a ham (W9OZH) in the late 1930's. Paul got interested in ham radio when he was 10 years old through his dad and an "Elmer" -- or actually, an Ernie, K9QAG--an older boy who lived next door. Paul was first licensed as a Novice at age 11 in October 1960 as KN9ATB (yep -- he just celebrated 30 years as a ham!). His first rig was a very used Heathkit DX-20, a 50-watt CW transmitter that had been modified for AM, and a Heathkit AR-3 receiver. He soon upgraded to General Class, becoming K9ATB, and then to Advanced Class license. Later, during the FCC's "incentive licensing" phase of the mid-1970's, Paul upgraded to Extra Class and picked his initials (PM) for his call sign suffix.

Like many long time hams, Paul goes through cycles of activity and inactivity. Paul entered his latest "active" cycle in 1987 when Paul and Sage moved to Raleigh and struck up a friendship with their new neighbors, Patrick and Marie. Patrick and Paul shared an interest in electronics, and both decided to check out the local radio club (RARS, of course!).

Well, Patrick soon became N4SSL, and Paul soon became active again! With Sage's support and encouragement, Paul began to participate again in Amateur Radio. Little did she know what that would look like!

Paul operates the "low bands" with a Kenwood TS-440S and a camouflaged "Carolina Windom" antenna from an apartment in southwest Raleigh near Lake Johnson. He's a high-tech CW enthusiast, and enjoys combining his transceiver, computer, TNC and software to send CW with an oh-so-perfect "fist" while performing automated logging and rig control functions. Paul occasionally gets on 2-meter packet to check the bulletin boards or to send traffic. He also enjoys SWLing with the TS-440 and monitoring VHF and UHF with a scanner.

Paul enjoys combining ham radio and the outdoors -- it must be the Boy Scout and the Marine in him! He has been an active participant in the last 3 so-called "Blood 'n' Guts" RARS Field Day Teams, the 1988 RARS Mt. Mitchell "expedition," a 50 kilometer bike race (as both a rider and as part of the ham radio coordinator team), and the RARS special event station earlier this year in Manteo commemorating the 200th anniversary of the Coast Guard. Paul is a proponent of solar energy and has incorporated the use of photo-voltaic (PV) panels into his portable operations over the past year. Besides Amateur Radio, his other interests include disaster preparedness, investments, personal computing, photography, camping, travel, current events, home building methods, science, bicycling, long walks with Sage, socializing with family and friends, movies, exercise, health, reading and cooking.

Paul and Sage have found that one key to their happy marriage is being supportive of each other's interests. So, even though Sage doesn't know what a balun or a Smith Chart is, she's usually game to help Paul set up antennas and makes sure he has enough food for Field Day weekend. And Paul sometimes finds himself at a vegetarian pot luck dinner (a culinary experience!), a vegetarian cooking class, or even at an animal rights march at the White House (shadowed by the FBI!). This RARS couple has many interests, that's for sure, but practices the old adage -- the family that plays together stays together!

W4DW Repeater 146.04/.64 MHz. and ACC RC-96 Controller User's Guide

First and foremost, the Emergency Autodialer:

The access for the Emergency Autodialer is “ * 9 1 ” followed by 0 thru 9 for the following services:

Loc.	SERVICE	VOICE	NUMBER
*910:	Cary 911	C 9 1 1	467-1911
*911:	Raleigh 911	R A L 9 1 1	911
*912:	Wake County Sheriff	856-5290	
*913:	NCSU Public Safety	NCSU Police	737-3333
*914:	Highway Patrol	N C H P	733-3861
*915:	(currently unprogrammed)	-----	-----
*916:	Nat'l WX Serv.	Weather Service	860-1234
*917:	WX Emergency Reports INBOUND	Weather Alert	****
*918:	Wake Forest PD	Wake Forest Police	556-3176
*919:	Wendell Police	Wendell Police	365-4444

****** Weather Alert Reports INBOUND** is a Hotline to report **ONLY** tornadoes or other severe weather to the Nat'l Weather Service at Raleigh-Durham Airport, such as might be reported on a SkyWarn Net, but if you can't reach that repeater. It is not to be used as a general number.

For example, Central Dispatch 911 can be dialed by simply entering “ * 9 1 1 ” from your touchtone pad. The controller will come up and announce “ R A L Nine One One ” and go ahead and dial the number. Here's a good time to repeat the Hamwatch procedure:

- 1) Identify: “This is Hamwatch Operator _____ ”
- 2) Give in this order:
 - a) LOCATION of the problem (eg Beltline westbound at Six Forks).
 - b) WHAT the problem is (eg 14 car accident).
 - c) Any other critical information (eg No Injuries).
- 3) Wait for the dispatcher if they have any other questions or instructions.
- 4) Hang up the patch (#) when you're thru.

If you think the situation can better be handled by talking directly to another service, go ahead and use the appropriate Emergency Dialer location. For example, Highway Patrol for accidents outside of the city limits, Cary dispatch if in Cary limits, Sheriff for problems in unincorporated areas of the county. If you are unsure and dial 911 Central Dispatch anyway, they will patch you thru to the correct service.

By the way, 911 Dispatch specifically asks us **NOT** to use the standard '10-Codes' - just because you may be or have been in a service that uses '10-50 PD' for an accident with Property Damage doesn't mean Raleigh 911 Dispatch uses it that way. Just as we can't expect them to understand Ham Radio's QSL, QRP, etc. Plain English is the best way to get your message across.

The Autopatch : To use the autopatch, dial the current access code and the telephone number ALL AS ONE SEQUENCE. Don't enter the code and release PTT to listen for dial-tone - it won't work. If you are in well enough for the controller to decode your digits, it will announce back to you "Auto Patch" and then pause. If you do nothing, the controller will read back the number to you over the air. To prevent readback give a quick PTT right after the 'AutoPatch' prompt. Either way, the controller will pause again, and then dial the number into the telephone line. You will hear a quick 'deet-deet-deet-deet-deet-deet-deet'. If you want to cancel the patch just enter any Touchtone digit during either pause or kerchunk during the readback. Hang-up is a pound "#" sign. Please remember to identify your transmissions, both before and after you use the patch.

Speaking of the 'patch, DO NOT give out the access code to ANYONE. Especially over the air!! If anyone asks for the code, refer them to our Treasurer, Tim, N4IQA, @ 851-7738. Tim sez he'll be happy to give to anyone ... AFTER he verifies their membership \$tatu\$!

Some of the other features:

TOUCH-TONE Pad Test: Enter a touchtone 5 and then which digits you want tested. For example, if you enter "5123456789*0#", the controller will read back to you: "One Two Three Four Five Six Seven Eight Nine Sierra Zero P"

This is a good way to find out if your signal is patch quality into the repeater. But remember to identify yourself when testing.

Announcements and Bulletins: Enter a touchtone 3 and any of 0 thru 8 or * and get the currently programmed messages - Initial ID, Forced CW ID, Pending & Special IDs, Bulletin Board Message 1 or 2, or the firmware revision announcement.

S-Meter Test: While it is not currently installed, the S-meter test will be a easy way to make you feel good - it always gives you an "S-Nine + Sixty", no matter where you are or how well you are into the repeater. Just enter a touchtone "8".

"CQ" Costs Ham \$1,000

The Kingsville (TX) FCC Monitoring office has sent an Official Notice of Violation to Lloyd S. Montcalm, WA2EZQ, of Hyannis, MA, for transmitting "... uninterrupted CQ calls in excess of 8 minutes in duration" on Sept. 13. It is noted that Mr. Montcalm happened to choose a popular spot on 20 meters for his CQ (14.300), and a net was already in operation on the frequency. Mr. Montcalm claims he heard no such net, but the fine stands.

On a similar note, the FCC has also issued Gordon N. Skul, WB9BCL, of Crete, IL, a \$1,000 Notice of Apparent Liability. Mr. Skul was cited for willful interference to ongoing communications on 14.205 MHz on 3 different occasions during Sept.

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Amateur Radio -- A National Resource

Raleigh Amateur Radio Society, Inc.

P.O. Box 17124

Raleigh, NC 27619

Next Regular RARS Meeting: Wednesday, November 7, 7:30 PM

Raleigh YMCA, 1601 Hillsborough St.

RARS Nets: Daily @ 8:00 PM on 146.04/64

10 Meter - Tuesdays, 7:00 PM on 28.364 MHz

YL Info Net - Wednesdays, 9:00 PM, 04/64

Technical Information Net - Saturdays, 8:30 PM, 04/64

RARS Computer Bulletin Board: 781-2530

Events Calendar

- | | |
|-------------|---|
| Nov 03 - 05 | ARRL Sweepstakes, CW |
| Nov 07 | Regular Rars Meeting, >>AUCTION!!<< 7:30 PM, YMCA |
| Nov 08 | RARS VHF/UHF SIG Meeting, WA4MJF's QTH. 266-4434 for info. |
| Nov 08 | RARS HF SIG >>SPECIAL MEETING<< McKimmon Center 7:30 |
| Nov 10 | Amateur Exams - Durham Contact Pete, KY4Y @ 544-3215 |
| Nov 14 | RARS Homebrew SIG Meeting. AB4OZ for info, 787-1111 |
| Nov 17 - 19 | ARRL Sweepstakes, Phone |
| Nov 21 | RARS Advisory Board Meeting, 7:00 PM YMCA, All members welcome. |
| Nov 24 - 25 | HAMFEST!! Greensboro, NC |
| Nov 27 | RARS 2 meter SIG meeting. KB4MDZ for info. |
| Nov 30 - 02 | ARRL 160 meter contest |
| Dec 05 | Regular RARS meeting w/ Exams. Info: AA4MY @ 847-8512 |
| Dec 08 | RARS Christmas Party ... Details inside!! |